1 Command & Control

This discipline encompasses battle management, Command & Control hierarchy, systems and commands, sensor-to-shooter and Time Critical Targeting. Future C4ISR systems including the airborne Active Electronically Scanned Array radar will play a significant role in America's defense.

2 Computers

In this category falls the Global Information Grid, net-centric warfare and the Distributed Common Ground Station. Computer software and hardware interoperability, the Joint Tactic Architecture and the migration to net-centric Enterprise Services also reside in the this category.

3 Communications overview

To gain full theater coverage, satellite communications, ground and aerial radio relays are used, including such deployed on aircraft and UAVs. Aircraft such as AWACS and Compass Call are not only helping people communicate better, they're also providing protection to the troops on the front lines.

4 Communications Channels

Tactical Data and Information Links, Link 11 and Link 16 fall into the military communications channels category. Other topics of interest in this category include: Interoperability, bandwidth, coordinate alignment, coordination in theater, next generation TADIL systems and the Single Integrated Air Picture.

5 Satellite Comm overview

On the horizon for satellite communications is the 2020 Transformational Communications Architecture, and the SATCOM and C4ISR architecture evolution. There will continue to be an emphasis on the development of integrated systems, robust protected network architecture and improvements in bandwidth capability.

6 Observables & Sensors

This discipline incorporates electronics intelligence, signal intelligence, image intelligence and sensor fusion. The Department of Defense's goal is to complete information integration with machines fusing intelligence, freeing people to dedicate more time to analysis.

7 Platforms & Sensors

This discipline uses Space Based Radar, UAVs and net-centric operations. With technology, sensor data is rapidly processed, correlated to a geographical grid and merged with live and stored images. Spatial information can be presented over common map displays, showing a detailed multi-dimensional situational picture.

8 Precision targeting

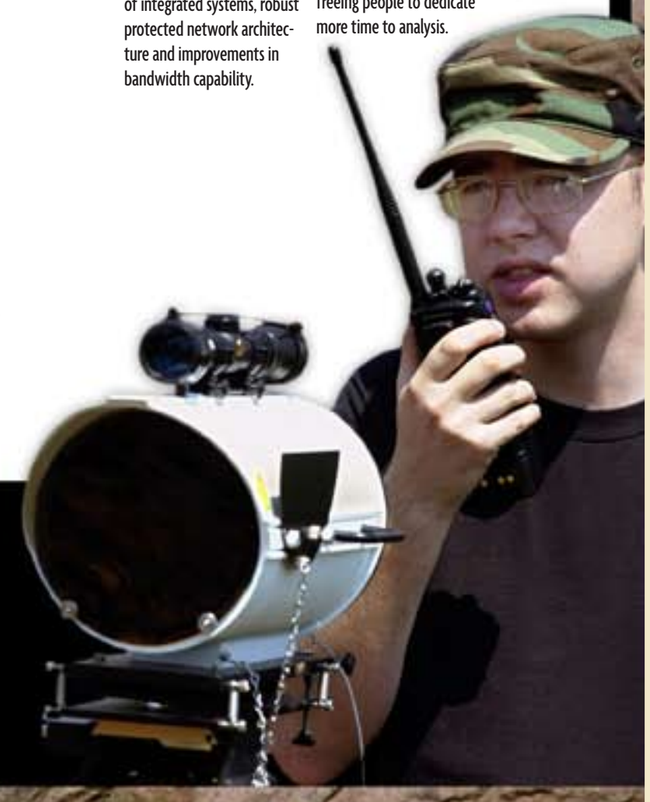
With precision targeting, the C4ISR community is able to maintain global information dominance while ensuring our national defense team sees first, understands first, and acts first.

9 Designing C4ISR systems

Under this category, the Air Force is working toward developing a system to meet interoperability and user requirements. The organizing principle for the C4ISR investment effort is the concept of placing "cursor over target," allowing commanders to study, save, exploit or destroy a target consistent with the combatant commander's plans.

10 Net-centric technology

The Air Force is working hand-in-hand with the Department of Defense to encourage operational net-centricity. The goal is to use modern technologies to build net-centric applications in the Global Information Grid.



focus C4ISR

By Mr. Jim Verchio
Intercom Editor

This month's intercom focuses on some of the systems and people who make up the C4ISR community.

From satellite communications to UAVs, the C4ISR landscape is transforming at lightning speed.

The decision loop for commanders is much smaller today than it was even five years ago. With so much information to manage, decision-makers need that information faster and analyzed quicker.

American commanders aren't the only ones who need information at warp speed. America's coalition partners need to be in the communications loop as well. To achieve this level of battlespace awareness, the Department of Defense is constantly evaluating its C4ISR capabilities.

Realizing today's battlefield is much different from conflicts past, Gen. Richard B. Myers briefed attendees of this year's C4ISR conference on how the DoD is working to harness information and shorten the kill chain.

The former chairman of the joint chiefs told his audience that even though America is setting the standard for C4ISR, it's by no means where it needs to be. He said (C4ISR) isn't just about communicating between services, it's about communicating with everyone.

He also stressed during his speech that "stovepiping" people and systems is not the way of the future. He said successful communication between services and across platforms requires a mindset of teamwork and cooperation.

"And if you think you're in the intelligence community or you think you are an intelligence platform or a surveillance platform or a reconnaissance platform, then you automatically stovepipe yourself." He said, "We ought to be thinking about battlespace awareness, that's what it's all about. We ought to blur these lines between operations and intelligence much more than we do. This puts a huge burden on the operators, to wake up and pay attention to what their collaboration with the rest of the intel community ought to be."

This graphic shows how the DoD is using technology to increase battlespace awareness without stovepiping its people or systems.

BATTLESPACE AWARENESS & C4ISR